

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 86-81

NPDES NO. CA0038628

AMENDING NPDES PERMITS FOR:

CENTRAL MARIN SANITATION AGENCY
SAN RAFAEL SANITATION DISTRICT
SANITARY DISTRICT NO. 1 OF MARIN COUNTY
SANITARY DISTRICT NO. 2 OF MARIN COUNTY
CITY OF LARKSPUR
IN MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. Central Marin Sanitation Agency (hereinafter the Agency) applied for waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES) by application dated June 13, 1985.
2. The Agency owns and operates a regional sewage treatment plant in San Rafael, as well as a deep-water outfall in San Francisco (Central Bay) and main interceptors leading from the old treatment plants it replaced. The Agency is a joint powers agency governed by representatives of its four member agencies. These include: San Rafael Sanitation District, Sanitary Districts No. 1 and 2 of Marin County, and the City of Larkspur. The member agencies own their respective collection systems, although some have made agreements to hold another party responsible for system operation and maintenance. As used in this permit, the "discharger" means the Agency and the four members noted above.
3. The discharger also transports and treats sewage from four other sewerage agencies pursuant to separate agreements with member agencies. The four other sewerage agencies are: City of San Rafael, Murray Park Sewer Maintenance District, San Quentin Sewer Maintenance District, and California Department of Corrections (San Quentin Prison).
4. The Agency's treatment plant has a design capacity of 10.0 million gallons per day (MGD) average dry weather flow. It provides secondary treatment for municipal wastewater for a population of roughly 94,000. The plant is designed to provide secondary treatment of flows up to 30 MGD, primary treatment for flows up to 90 MGD, and has a hydraulic capacity of 125 MGD. Treated effluent is discharged to San Francisco Bay (Central Bay)

at a location 8500 feet from shore at a depth of 35 feet MLLW and at an initial dilution ranging from 15:1 for a flow of 90 MGD to 84:1 for a flow of 25 MGD (37 deg. 56 min. 54 sec. Latitude and 122 deg. 27 min. 23 sec. Longitude).

5. The discharger is presently governed by Waste Discharge Requirements, Order No. 85-118, which allow discharge into San Francisco Bay (Central Bay). This Order was adopted by the Board of October 16, 1985. Order No. 85-118 states in part:

C. Effluent Limitations

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2. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Monthly</u>		<u>Maximum</u>
		<u>Average</u>	<u>Weekly</u>	
BOD	mg/l	30	45	60

6. EPA's secondary treatment regulations allow publicly-owned treatment plants (POTWs) to met either a total BOD or a carbonaceous BOD (CBOD) effluent limitation (40 CFR 133.102(a)). The CBOD limitation is often preferred by POTW's that nitrify wastewater (i.e., that oxidize carbon-based as well as nitrogen-based wastes). The CBOD test inhibits the growth of nitrifying bacteria and therefore reflects only the oxygen demand due to carbonaceous waste. The CBOD limitation is somewhat more stringent than the BOD limitation (25 mg/l vs. 30 mg/l monthly average, and 40 mg/l vs. 45 mg/l weekly average) because analyses of the same waste will produce a higher value for BOD than for CBOD.
7. The Agency has furnished data showing that a significant degree of nitrification occurs within their waste water. This nitrification is a result of long retention times, brought about by the large hydraulic capacity of the plant. The average dry weather flow is 10 MGD, but the hydraulic capacity is 125 MGD. The resulting nitrification has caused the Agency to violate their 85% BOD removal requirement occasionally, the 60 mg/l daily maximum limit twice, and the 30 mg/l monthly average once, because of the nitrogeneous oxygen demand occuring during the 5-day BOD test. The data below demonstrates the Agency's claim that they can consistently meet the required CBOD limit:

<u>DATE</u>	<u>BOD (mg/l)</u>	<u>CBOD (mg/l)</u>
December 19, 1985	40	5
26	28	9
January 2, 1986	30	8
16	75	42
23	18	9
30	50	31
February 6	22	14
13	50	27
21	18	14
27	28	5
March 6	21	5
13	26	15
20	10	4
April 3	29	8
10	27	5
17	35	8
24	28	4
May 1	26	5
8	29	15
15	31	15
22	26	13
29	14	10
June 5	18	14
July 3	9	6
9	14	1
17	15	6
24	23	9
31	35	14
August 7	33	15
14	31	10
21	18	18
28	8	6
September 5	5	5
11	9	9
18	11	8
25	17	14

8. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
9. The discharger and interested agencies and persons have been notified of the Board's intent to amend the discharger's NPDES permit and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
10. The Board, in a properly-noticed public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder and to the provision of the Federal Water Pollutant Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

1. All prohibitions, effluent limitations, receiving water limitations, and provisions of Order 85-118 remain in force, except as modified below.
2. Section C.2.a. of Board Order 85-118 is revised to read as follows:

2. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>
CBOD	mg/l	25	40

The nitrogen inhibited (CBOD) values are to be determined by the EPA approved CBOD test procedure (listed as "Parameter No. 14, Table IB in the October 26, 1984 Federal Register).

3. This Order shall serve to amend National Pollutant Discharge Elimination System Permit CA0038628 pursuant to Section 402 of the Clean Water Act and shall become effective 10 days after the of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.
4. The testing of BOD as described in the Self-Monitoring Program adopted by the Board in Order No. 85-118 shall be substituted by CBOD. The sampling points, type of sample, and sampling frequency as described in the Self-monitoring Program remain unchanged.
5. This Order expires when Order No. 85-118 is rescinded.

I, Roger B. James, Executive Officer, do certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 19, 1986


Roger B. James
Executive Officer

Attachment:
Map

